Standard: ***Configuration Management Plan (CMP)***	
Issue Date: May 5, 2000	**Standard ID:** ***S-CM-030***
Supersedes: **March 9, 2000**	**Rev/Change 2.0**

1. **Purpose:** To define the required elements of the Project Configuration Management Plan.

2. **Creating Procedures:** P-PE-030 – Detailed Planning

3. **Contents:**
   a) ***Cover Page***: For stand-alone plans only, use S-GP-010 unless government specified
   b) ***Table of Contents***:
   c) (1.0) ***Introduction***: A brief overview of the plan
   d) (1.1) ***Purpose***
   e) (1.2) ***Scope:*** Identify the project, system, software items, activities and phases to which the plan applies.
   f) (1.3) ***Definitions and Acronyms***: Include all definitions and acronyms required for interpretation of the plan.
   g) (1.4) ***References***: Provide a list of all documents referenced in the plan by title, document number and date, if applicable.
   h) (2.0) ***Management:***
   i) (2.1) ***Organization*****:** Define the CM organization in relation to the project. Define any CM interfaces with the government such as transfer of CM functions in the operation and maintenance phase.
   j) (2.2) ***CM Responsibilities:*** Define responsibilities for specific CM activities, including - identification, status accounting, control, reviews and audits. Define the responsibilities of the users and developers.
   k) (2.3) ***Interface Control:*** If applicable, describe the methods for the control of interface documents. Define the applicable interface documents, specifications, etc. and the methods for processing changes and maintaining status. Define the methods for control of the interface between software and the hardware on which it is running.
   l) (2.4) ***CM Implementation:*** Define schedule and major milestones for implementation, such as establishing CCB, installing CM tools, establishing baselines, etc.
   m) (2.5) ***Applicable Policies and Procedures***: Define any other standards and documents that apply, such as government standards, naming and convention standards, etc.
   n) (3.0) Software CM Activities: Define the following specific software CM activities:
   o) (3.1) Configuration Identification:
      1) Configuration Items:
      Define the project software configuration items (SCI) (each "item" must be a separate distinct item controlled by a CM tool)
      Define the labeling and numbering scheme for the SCI's

Define how versions and releases are identified

2) Baselines:

Identify the project methods and items associated with the following baselines:

Functional Baseline: This baseline states the system requirements in the form of functional capability. This baseline is the beginning of the requirement analysis stage and per the SEPH includes the Requirements Traceability Matrix (S-PE-187). Define any other project specific documents associated with this baseline (Conformed Specification, etc.). Define any reviews associated with the baseline (System Requirements Review, etc.)

Allocated Baseline: This baseline is established by the SEPH requirement for a Requirements Traceability Matrix (S-PE-190), which allocates the system requirements to the software components. Define any other project specific documents associated with this baseline (Software Requirements Specifications, Interface Requirements documents, etc.). Define any reviews associated with this baseline, (PDR, etc.).

Development Baseline: This baseline starts at the beginning of the detailed design phase and progresses through more detailed descriptions of a configuration item. Define any project specific documents associated with this baseline, (Detail Design Specifications, etc.). Define any reviews associated with this baseline (CDR's, etc.) One of the key Developmental Baselines uses the baseline used for Integration Testing. The Build Directive (S-CM-070) specifies how each build is produced. The CM Plan needs to define who approves the contents of a new test baseline. On large projects this would be the CCB. On small projects the Project Manager and Test Manager agree. On very small projects the Project Manager can decide.

p) (3.2) ***Change Control*** (Refer to P-CM-010 for SEPH change control process using the Modification Request)

- Define the numbering scheme to be used for Mod Requests.
- If an alternate to the Mod Request is to be used, define the alternate forms, process, etc.
- Define the designated individual(s) with responsibility for reviewing Mod Requests and assigning responsibilities.
- Define the CM role in the Mod Request process.
- If applicable, define change control of government supplied or vendor supplied software.
- Document Changes: (Refer to P-CM-010 for SEPH document control process)
- Define the CM roles and responsibilities for document revisions
- Define the distribution process for revised documents
- Define the process for controlling changes to government supplied documents
- Define the methods used to identify document versions

Libraries:
- Define the number of libraries and types
- Define the backup and disaster plans and processes
- Define the recovery process for any type of losses
- Define how the information is retained (on line, off line, media type and format)
- Define the process for creating and releasing products from the libraries (submitting CI's, deleting CI's, etc)
- Define the check in and check out procedures
- Define the CM roles and responsibilities in the CM library process

Tools:
- Define any CM tools to be used and a brief description of how they are used

Hardware CM:
- Define the Project specific hardware CM activities

Engineering Drawings:
- Define the numbering scheme to be used (Refer to S-GP-250).
- Define the CM role in the issue and control of drawing numbers.
- Define the accepted standard for drawing format (DOD 100, ANSI, etc.).
- Define the required approval cycle for engineering drawings.
- If applicable, define the CM role in obtaining government approval of drawings.
- Define the CM role and responsibilities in the engineering drawing change control process. Note: (Changes to engineering drawings must be per the SEPH Modification Request Process, P-CM-010)
- Define the approval cycle for changes to engineering drawings.
- Define the storage method, format and responsibilities for maintaining the engineering drawings.
- Define any hardware CM audits (PCA's, etc.) to be performed. Describe the audit process (forms, schedule, responsibilities, etc.).
- Define how the hardware configuration will be controlled during testing.

q) (3.3) ***Configuration Status Accounting:*** Define how the status of the configuration items is to be collected, tracked and reported.

r) (3.4) Audits and Reviews: Define the CM audits to be conducted. (Refer to P-CM-030, Baseline audits.) Define the CM role in the CM reviews (PDR, CDR, etc.).

s) (4.0) Tools, Techniques and Methodologies: Define the CM tools to be used and a description of how they are to be used for source and object control within the software libraries, etc.

t) (5.0) Supplier Control: Define the methods used to control the configuration on vendor and subcontractor supplied software.

u) (6.0) Records Collection and Retention: Define the methods used to retain and safeguard controlled documents and define any off site back up facilities used.

4. Format

Project Manager Specified

5. Notes:

a) This standard is for generating an internal CM Plan that is suitable for delivery. This sample plan meets the requirements of the IEEE Standard for Software Configuration Management Plans, IEEE Std. 828. Paragraph numbers in parenthesis must be used when compliance to IEEE is required.

b) Your backup plan should include making backups to off-site storage, and it should encompass all the important materials on your project (documents, graphics, and notes - in addition to source code). One often-overlooked aspect of devising a backup plan is a test of your backup procedure. Try doing a restore at some point to make sure that the backup contains everything you need and that the recovery works.